

10

LEGAL DESCRIPTIONS

1 LEARNING OBJECTIVES

2 *When you have completed this unit, you will be able to accomplish the following.*

- 3 ■ Describe the purpose of legal descriptions and understand the licensee's role and responsibilities as it
- 4 pertains to legal descriptions.
- 5 ■ Describe the process of creating a legal description using the metes-and-bounds method.
- 6 ■ Locate a township by township line and range.
- 7 ■ Locate a particular section within a township and understand how to subdivide a section.
- 8 ■ Calculate the number of acres in a parcel based on the legal description and convert acres to square
- 9 feet.
- 10 ■ Explain the lot and block survey method and the use of assessor's parcel numbers.

11 KEY TERMS

base line	metes-and-bounds	section
check	description	survey
government survey	monument	tier
system	point of beginning (POB)	township
legal description	principal meridian	township line
lot and block	range	

12 INTRODUCTION

13 This unit introduces the various methods used to locate and describe the boundar-
 14 ies of real property. Basic to the real estate business is a working knowledge of legal land
 15 descriptions.

16 10.1 PURPOSES OF LEGAL DESCRIPTIONS

17 The purpose of a **legal description** is to describe a parcel of land with sufficient detail
 18 that it will be accepted by a court of law. A legal description describes a particular piece
 19 of property in a way that uniquely identifies that parcel. A legal description is *legally suf-*
 20 *ficient* if it allows a surveyor to define the exact boundaries of the property. Purchasers (and

1 title companies and lenders, if applicable) want documents such as deeds and mortgages
2 to accurately identify the exact location, size, and shape of the property to be conveyed.

3 The description is based on information collected through a survey. A **survey** is a
4 drawing of a parcel of land showing its boundary lines. The boundaries are measured by
5 calculating the dimensions and areas to determine the exact location of a piece of land
6 (see Figure 10.1).

7 There are five additional purposes of surveying property and developing legal descrip-
8 tions for each parcel:

- 9 ■ Obtain current and accurate boundary information required to write a legal
10 description
- 11 ■ Establish the exact quantity of area within a described tract, whether described
12 in square miles, acres, or square feet
- 13 ■ Reestablish boundaries that may have become lost or obliterated
- 14 ■ Obtain data required to divide a large tract into smaller units for development
15 and sale
- 16 ■ Identify and describe encroachments, if any

17 **Licensee's Role and Responsibilities.** Legal descriptions should be inserted into sale
18 contracts with extreme care. Often, even punctuation is critical. Title problems can arise
19 from an inaccurate legal description. Even if the contract can be corrected before the sale
20 is closed, the real estate licensee risks losing a commission and may be held liable for dam-
21 ages suffered by an injured party because of an improperly worded legal description. Real
22 estate professionals should refer to a reliable document, such as the deed that transferred
23 the property to the current owner, or the tax roll/property appraiser's website for a full and
24 accurate legal description.

Practice Questions

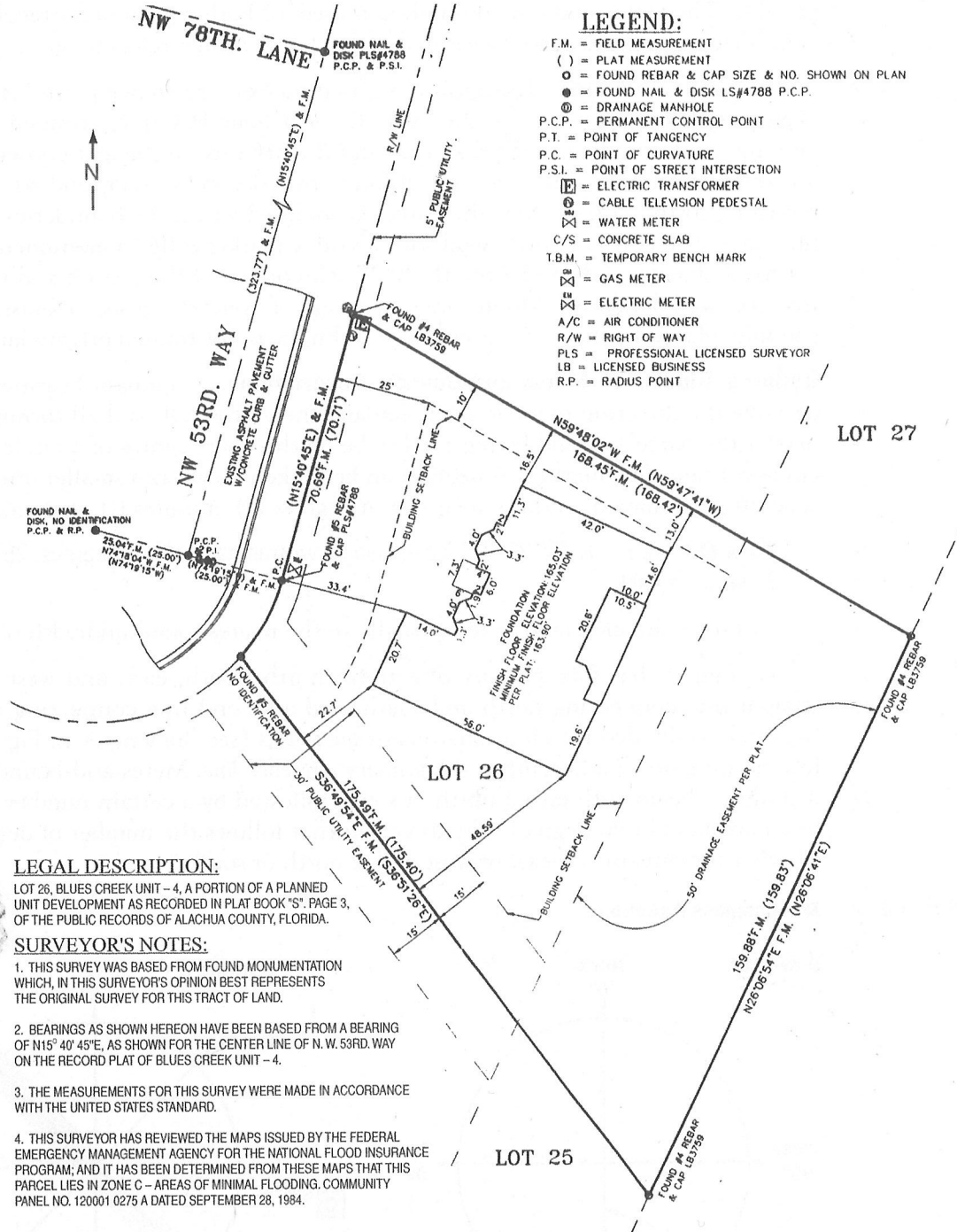
1. The purpose of a legal description is to describe a parcel of land with sufficient detail that it will be accepted by a _____ of _____.
2. A _____ is a drawing of a parcel of land showing its boundary lines.

FIGURE 10.1 ■ Boundary Survey

BOUNDARY SURVEY

-IN-

SECTION 10, TOWNSHIP 9 SOUTH, RANGE 19 EAST ALACHUA COUNTY, FLORIDA



10.2 DESCRIPTION BY METES-AND-BOUNDS

There are three types of legal descriptions used today: (1) metes-and-bounds, (2) government survey system, and (3) lot and block descriptions.

The **metes-and-bounds description** is the oldest method of land description. Today, surveyors use computer software and laser equipment to create the most accurate surveys possible. The metes-and-bounds method is used for both regular and irregular shaped parcels. *Metes* refers to *distance* (measured in feet), and *bounds* refers to *direction*.

A metes-and-bounds description begins at an exact reference point, called a **point of beginning (POB)**. Starting at the POB, the first boundary is determined from the legal description that indicates the direction and the distance to the first corner of the parcel, followed by another direction and distance to a second corner, and so on, eventually returning to the POB so that the parcel is enclosed within its boundaries. The surveyor identifies each corner of the parcel with a visible marker called a **monument**. Monuments are fixed objects used to identify the POB, all corners of the parcel, and the location of intersecting boundaries. Monuments are made of concrete, iron, or brass, and they are carefully placed by the U.S. Army Corps of Engineers or trained private land surveyors.

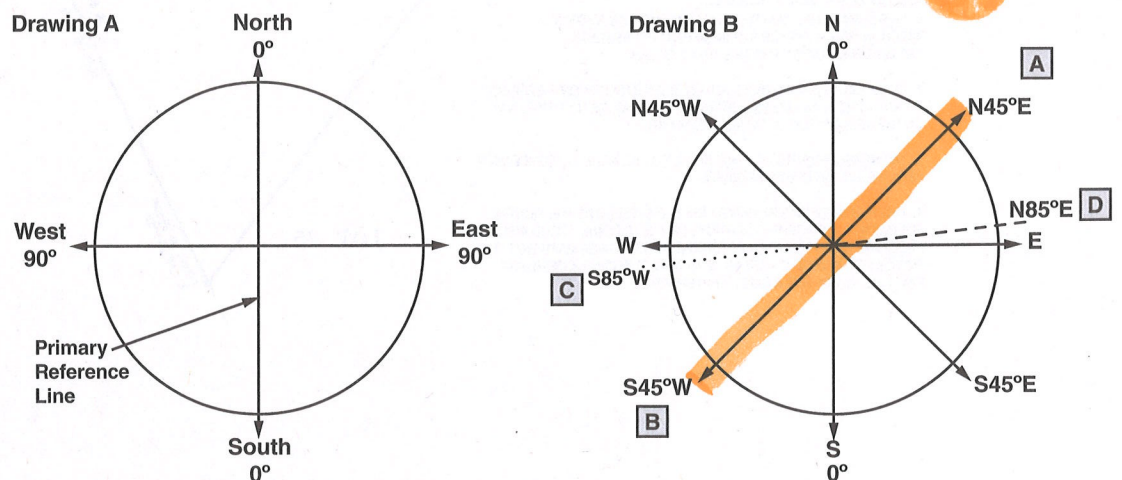
Building Blocks of Metes-and-Bounds Descriptions. Compass bearings are used to describe the direction of a parcel's boundary lines. The POB and all turning points (corners of the parcel) should be regarded as being the exact center of a circle. Recall that a circle contains 360 degrees. A degree can be broken down into smaller units. To be more accurate, boundary directions are given in degrees ($^{\circ}$), minutes ($'$), and seconds ($"$).

EXAMPLE: N 45° 25' 20" E can also be written as North 45 degrees, 25 minutes, 20 seconds East.

Distances are measured in feet, usually to the nearest one-hundredth of a foot.

A compass has four primary directions: north, south, east, and west. If we draw a straight line connecting north and south, and a second line connecting east and west, the circle is divided into four quarters or *quadrants* (see drawing A in Figure 10.2). The line running north and south is the *primary reference line*. Metes-and-bounds descriptions will always begin with either north or south followed by a certain number of degrees, up to a maximum of 90 degrees. The direction that follows the number of degrees indicates whether the direction is east or west of due north or south.

FIGURE 10.2 ■ Compass Directions



1 Let's begin by plotting *North 45 degrees East*. Using drawing B in Figure 10.2, place
2 your pencil in a vertical (north-south) position over the circle. The first word in the
3 description "North" indicates that we will begin with north as our primary direction, so
4 our pencil lead should face upward (north). The second direction is "East," so rotate your
5 pencil in an easterly direction (to the right on the drawing). How far is 45 degrees? It is
6 halfway between zero degrees (due north) and 90 degrees (due east) (see line A on draw-
7 ing B in Figure 10.2).

8 The reason why the number of degrees cannot exceed 90 is that one would pass the
9 point midway between north and south and begin to move toward the other primary ref-
10 erence direction. For example, let's plot *South 85 degrees West*. Begin with your pencil in
11 a vertical (north-south) direction with the pencil lead facing south (downward). Move
12 85 degrees to the west (to the left on the drawing). Because 85 degrees approaches 90, we
13 can draw a line very close to due west (see line C on drawing B in Figure 10.2).

14 What would happen if you were to plot *North 95 degrees West*? I know—I just told
15 you descriptions don't exceed 90 degrees, but let's see why. Again place your pencil in a
16 vertical position, this time with the pencil lead facing upward (north). If you rotate the
17 pencil 95 degrees to the west, notice that you pass due west (90°) and end up 5 degrees into
18 the lower half of the circle. Therefore, the description should have begun with the pri-
19 mary reference direction of south. Let's rewrite the description properly as *South 85 degrees*
20 *West*. Place your pencil in the vertical position with the pencil lead facing south. Rotate
21 your pencil to the west 85 degrees, which is just 5 degrees shy of 90 degrees. We have con-
22 firmed that the line is correctly labeled as *South 85 degrees West* (see line C on drawing B
23 in Figure 10.2).

24 Notice that the opposite of S 45° W (line B in Figure 10.2) is N 45° E (line A in
25 Figure 10.2). The number of degrees does not change, only the compass directions. What
26 is the opposite of S 85° W? It is N 85° E (see line D in Figure 10.2).

Practice Questions

3. The _____ method is the oldest method of legal description.
4. *Metes* refers to _____ and *bounds* refers to _____.
5. A metes-and-bounds description begins and ends at the _____ of _____.
6. What is the opposite of N 45° W? To help you answer this question, refer to Figure 10.2, drawing B.
7. Without referring to Figure 10.2, what is the opposite of S 15° E? Hint: The number of degrees do not change, only the compass directions.
8. Write the following legal description in numbers and symbols: North 15 degrees 25 minutes 20 seconds West.

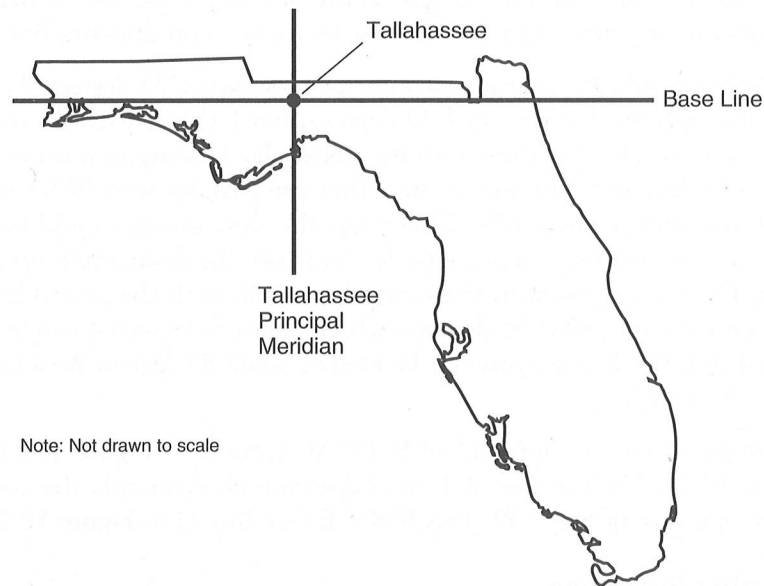
27 10.3 DESCRIPTION BY GOVERNMENT SURVEY

28 Following the Revolutionary War, the new federal government became the owner
29 of all the land previously claimed by England. The government wanted an efficient way
30 to survey all the newly acquired land. Congress chose a massive undertaking called the
31 **government survey system**. The government survey system is based on the logic that
32 you can identify a parcel by reference to two intersecting lines. By dividing the land

1 into squares, the survey created land descriptions by identifying the square(s) in which
 2 the land was located. The process was to create a large grid with every square of the grid
 3 uniquely identified.

4 **Principal Meridian and Base Line.** A beginning reference was established in the center
 5 of the territory to be surveyed. The beginning reference is the intersection of a north-
 6 south line called a **principal meridian** and an east-west line called a **base line**. In all,
 7 36 principal meridians and base lines were established and named in the United States.
 8 The Tallahassee Principal Meridian and base line are the reference lines used in surveys
 9 in Florida (see Figure 10.3).

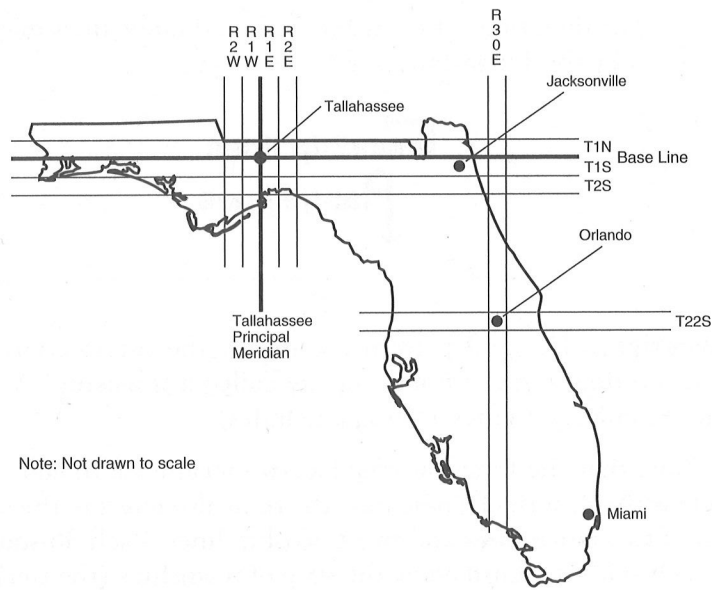
FIGURE 10.3 ■ Map of Florida Showing Principal Meridian and Base Line



10 **Range.** To create the grid system, surveyors established vertical (north-south) *range lines*
 11 parallel to the principal meridian (PM) every six miles. This resulted in a series of lines
 12 six miles apart on either side of the PM. Each resulting six-mile-wide vertical (north-
 13 south) strip of land on either side of the PM is called a **range**.

14 Each range is numbered beginning at the PM. The first vertical (north-south) strip of
 15 land to the east of the PM is numbered Range 1 East or more concisely, R1E. The range
 16 numbers increase by 1 moving farther from the PM. For example, the next range east of
 17 the PM is R2E, then R3E, and so on. The numbering also begins with 1 to the west of the
 18 PM. The first range west of the PM is R1W, then R2W, and so on (see Figure 10.4).

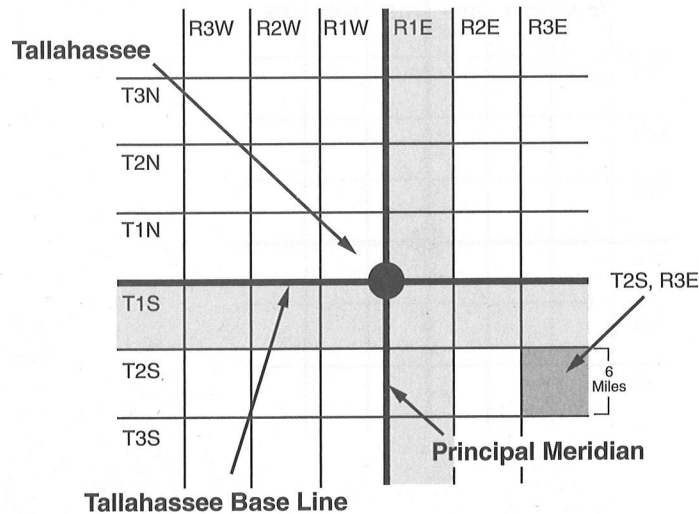
FIGURE 10.4 ■ Map of Florida Showing Selected Range and Township Lines



1 **Tier or Township.** The surveyors also established horizontal (east-west) **township lines**
 2 parallel to the base line (BL) every six miles. This resulted in a series of lines six miles
 3 apart on either side of the BL. Each resulting six-mile-wide horizontal (east-west) strip
 4 of land on either side of the BL is called a **tier** or simply *township*. To help remember that
 5 tiers are horizontal strips, think of the tiers of a wedding cake.

6 Each tier is numbered beginning at the BL. The first horizontal (east-west) strip of
 7 land above (north of) the base line is numbered Township 1 North, or more concisely,
 8 T1N. The township line numbers increase by 1 moving farther from the BL. For example,
 9 the next township tier north of the BL is T2N, then T3N, and so on. The numbering also
 10 begins with 1 below (south of) the base line. The first township tier south of the BL is T1S
 11 (the shaded row in Figure 10.5), then T2S, and so on (see Figure 10.5).

FIGURE 10.5 ■ T2S, R3E



T O R E M E M B E R : T O W N S H I P A N D R A N G E L I N E S

The directions of township lines and range lines may be easily remembered by thinking of the words this way:

Township lines
Range lines

1 **Townships.** The grid pattern created by the intersection of two range lines and two
 2 township lines forms a 6-mile square called a **township**. A township contains 36 square
 3 miles (6 miles \times 6 miles = 36 square miles).

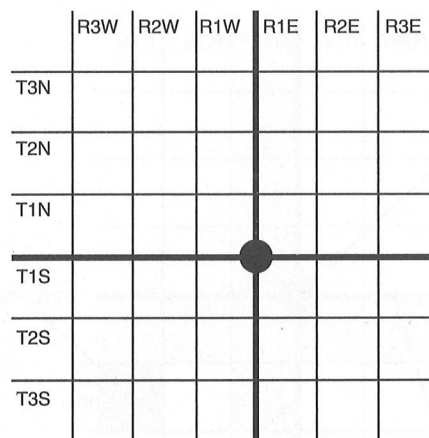
4 Note that the term *township* has two meanings: In addition to an (east-west) strip of
 5 land north or south of a base line, the term also refers to the square formed by the intersec-
 6 tion of two range lines and two township lines. Each 36-square-mile township (six miles
 7 on each side) is identified by the strip of townships (the tier) and the range in which it is
 8 located.

9 **EXAMPLE:** T1S is the first tier south of the base line (refer to the shaded tier T1S
 10 in Figure 10.5). R1E is the first range east of the Tallahassee Principal Meridian (refer to
 11 the shaded range R1E in Figure 10.5).

12 A particular township is identified by indicating the tier and range that intersect to
 13 form the 6-mile square. Township T2S, R3E is located in the second tier south of the base
 14 line and the third range east of the principal meridian (refer to the shaded township in
 15 Figure 10.5).

Practice Questions

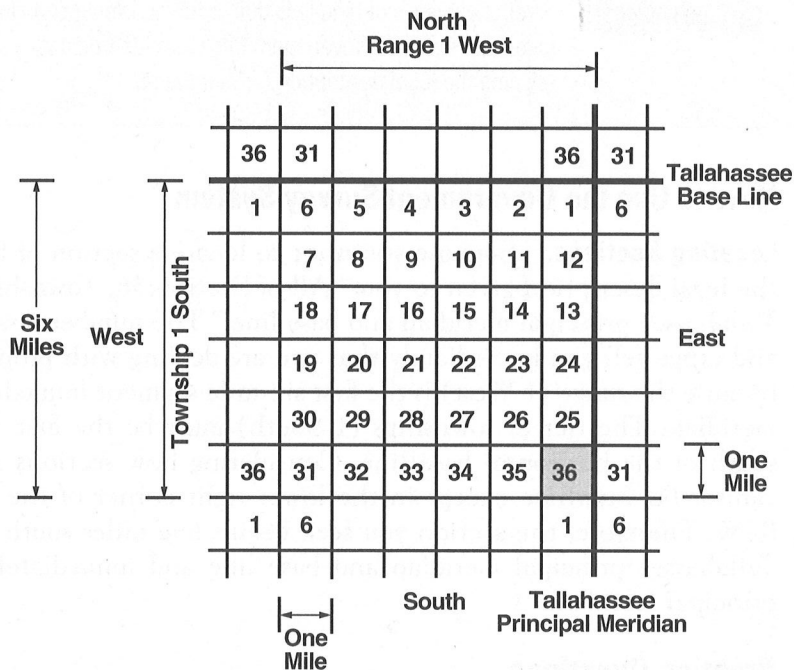
9. Locate and mark the township numbered T2N, R2E on the following drawing.
10. Locate and mark the township numbered T3S, R1W on the following drawing.



10.4 SECTIONS

Each township is further divided into 36 sections. Each section is one square mile or 640 acres. Sections are numbered in an S-pattern, beginning in the northeast (upper right) corner of the township with section number 1. The sections are numbered from 1 in the northeast corner and then consecutively to the west through section 6. The section numbers then wrap around in an S-pattern. The second horizontal row begins directly under section 6 and progresses west to east (left to right) from 7 to 12. Section 13 is directly under section 12, and one moves west (to the left) with section 18 last in that row. This method of numbering is repeated until section number 36 is reached in the southeast, or lower right, corner of every township. The numbering pattern of sections repeats itself inside each township (see Figure 10.6).

FIGURE 10.6 ■ Sections in a Township



At first, this may seem odd to number sections this way; however, in the 1800s, surveyors measured the one-mile distances with metal chains and walked the sections on foot. Imagine surveyors departing the original 13 states and walking toward the west. This is why section 1 is located in the northeast corner of the township. Because of the primitive methods and tools they used at the time, surveyors found it more efficient and less tiring to measure the sections using this particular numbering sequence. To help remember the number system, think of the pattern people usually walk when doing their weekly grocery shopping at the supermarket as they go down one aisle and up another.

In writing a legal description of a section, it is customary to show the section number first, then the township tier number and direction, and last the range number and direction. For example, *Section 36, Township 1 South, Range 1 West of the Tallahassee principal meridian and base line* identifies Section 36 within the township that is located immediately southwest of the intersection of the principal meridian and base line. It is abbreviated to *Sec 36, T1S, R1W* (refer to the shaded Section 36 in Figure 10.6).

The survey presented in Figure 10.1 on page 229 is also identified as Government Lot 1, Section 36, Township 66 South, Range 27 East, Sugarloaf Key of Monroe County, Florida.



MEASURES AND TERMS ASSOCIATED WITH THE GOVERNMENT SURVEY SYSTEM

<i>Check</i>	A square 24 miles on each side created by intersecting guide meridians and correction lines; used to adjust the grid pattern of squares because of the curvature of the earth. A check contains 16 townships.
<i>Township</i>	A square 6 miles on each side (6 miles square) containing 36 square miles (36 sections); also an (east-west) strip of land north and south of a baseline (tier).
<i>Section</i>	A square 1 mile on each side (1 mile square) containing 1 square mile (640 acres).
<i>Quarter section</i>	160 acres, measuring 2,640 feet by 2,640 feet. Historically, it was the area of land originally granted to a homesteader. Today, the 160 acres is still used to establish the limits of homesteaded property outside the boundaries of municipality.
Government lot	Fractional pieces of land less than a full quarter section located along the banks of lakes and streams. Government lots were identified by a specific lot number, which became the legal description for that parcel.

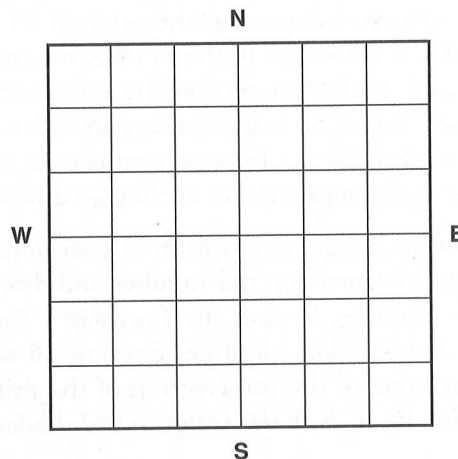
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1 How to Use the Government Survey System

- 2 **Locating Sections.** Suppose you want to locate a section of land in Florida, and this is
 3 the legal description given to you: "All of Section 36, Township 1 South, Range 1 West,
 4 Tallahassee principal meridian and base line." The numbers assigned to the township tier
 5 and range tell you immediately that you are dealing with property very near Tallahassee
 6 because the range (1 West) is the first six-mile segment immediately west of the principal
 7 meridian. The tier of townships (1 South) must be the first six-mile strip immediately
 8 south of the horizontal base line. Considering how sections are numbered, Section 36
 9 cannot be anywhere except in the lower right corner of the township numbered T1S,
 10 R1W. Therefore, the section you seek begins five miles south of the intersection of the
 11 Tallahassee principal meridian and base line and immediately west of the Tallahassee
 12 principal meridian.

Practice Questions

11. Number the sections in the following township.



12. Using the completed township grid from question 11, fill in the blanks to complete the statements regarding sections.

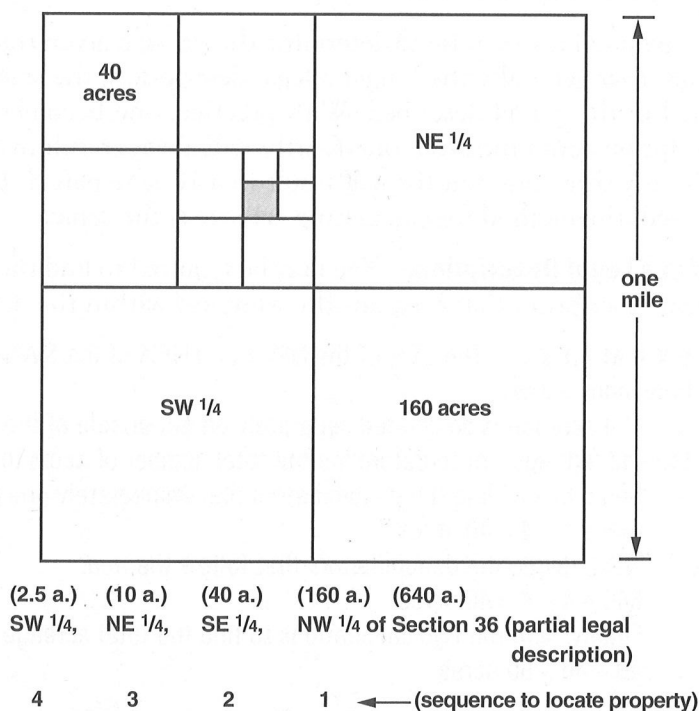
- The section number immediately north of section 36 is section _____.
- The section number immediately south of section 36 is section _____.

10.5 SUBDIVIDING SECTIONS

Each section is theoretically a square, with all sides measuring one mile each and containing 640 acres within its boundaries. It is important to remember the exact number of acres in a section because 640 is used for many purposes. One reason is that the section is the basic reference when writing a legal description of land. It is also the reference when calculating acreage in subdivided tracts. Each section can easily be divided into halves, or into quarters, and so on, down into smaller divisions until the particular property one wants to locate or describe has been pinpointed.

Suppose you are interested in only a quarter section, 160 acres, of Section 36. First, divide the entire section into fourths by drawing a straight vertical line through the center of the section and a straight horizontal line through the center of the section. The two lines are perpendicular to each other and cross in the exact center of the section. The quarter section now situated in the upper right corner of the section is called the *Northeast Quarter*, the one in the lower right corner is the *Southeast Quarter*, and so on around the section (see Figure 10.7). Directions are always given in terms of the direction from the center of the section where the two dividing lines intersect.

FIGURE 10.7 ■ Section 36



Quarter sections contain 160 acres. Suppose you are interested in a tract smaller than 160 acres. You can divide any quarter just as you did the section. Furthermore, you can keep on dividing the results until you find the tract in which you are interested.

1 Assume you need to find a 2.5-acre tract located somewhere near the center of Sec-
 2 tion 36. The legal description given to you is "SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$
 3 of Section 36." Beginning with the section, divide it into quarters to start locating the
 4 property. In locating property from a legal description, it is necessary to start with the last
 5 part of the description and read from right to left. So, because you have located Section 36,
 6 move to the last fraction in the description (NW $\frac{1}{4}$) and separate that quarter section from
 7 the whole. Move to the next fraction (SE $\frac{1}{4}$), divide the previously located quarter section
 8 (NW $\frac{1}{4}$) into four parts, and focus your attention on the resulting southeast quarter. Move
 9 to the next fraction (NE $\frac{1}{4}$), divide the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ into four parts, and locate the
 10 northeast quarter of that division. You still have one more fraction (SW $\frac{1}{4}$) remaining, so
 11 divide the last located parcel (NE $\frac{1}{4}$) into fourths once more. When you find the southwest
 12 quarter of that division, you have located the tract described.

13 **Calculating Size.** To find the number of acres in a tract, two approaches are possible:

- 14 1. Take 640 (the number of acres in one section) and divide by the bottom number
 15 (the denominator) of each fraction in the legal description.

16 **EXAMPLE 1:** The SW $\frac{1}{4}$, NE $\frac{1}{4}$, SE $\frac{1}{4}$, NW $\frac{1}{4}$ of a certain section contains how many
 17 acres?

18 $640 \div 4 = 160; 160 \div 4 = 40; 40 \div 4 = 10; 10 \div 4 = 2.5$
 19 or $640 \div 4 \div 4 \div 4 \div 4 = 2.5$ acres

- 20 2. Multiply the denominators of each fraction together and then divide 640 by the
 21 result.

22 **EXAMPLE 2:** The SW $\frac{1}{4}$, NE $\frac{1}{4}$, SE $\frac{1}{4}$, NW $\frac{1}{4}$ of a certain section contains how many
 23 acres?

24 $4 \times 4 \times 4 \times 4 = 256$
 25 $640 \div 256 = 2.5$ acres

26 The previous exercise to determine the size of a given tract demonstrates, among other
 27 things, that generally the longer a legal description, the smaller the number of acres con-
 28 tained in the parcel described. With practice, one becomes familiar with the fact that a
 29 description containing four one-fourths will always result in a 2.5-acre tract. A description
 30 with only three one-fourths will result in a 10-acre parcel. If fractions other than fourths
 31 are used, the method for calculating acreage is the same.

32 **And in a Legal Description.** You may be required to find the total acreage of a parcel with
 33 a legal description that contains the word *and* within the description.

34 **EXAMPLE:** The SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ *and* NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of a certain section contain
 35 how many acres?

36 The acreage is calculated separately on either side of the word *and*. The acres are
 37 then added together to determine the total number of acres in the legal description.

38 Begin by dividing the denominators that immediately precede the *and*.

39 $640 \div 4 \div 4 = 40$ acres

40 Next, divide the denominators that follow the *and*.

41 $640 \div 4 \div 4 = 40$ acres

42 Finally, sum the two calculations to find the total acreage in the legal description.

43 $40 + 40 = 80$ acres

44 **Calculating Square Feet and Cost Per Acre.** Real estate professionals often describe
 45 vacant land by the number of acres in the parcel. When comparing parcels of land, cost
 46 per acre or cost per square foot are common units of measure. To be able to calculate the
 47 cost per square foot, it is necessary to memorize how many square feet are in an acre.

TO REMEMBER: NUMBER OF SQUARE FEET IN AN ACRE

4 people driving 35 mph in a 60-mph zone

43,560 square feet in an acre

61

1
2
3
4
5
6
7

EXAMPLE 1: How many square feet are in 2.5 acres?

Multiply the number of acres in the parcel \times 43,560 square feet per acre.

$2.5 \text{ acres} \times 43,560 \text{ square feet} = 108,900 \text{ total square feet}$

EXAMPLE 2: A 1-acre vacant parcel of land sold for \$65,340. How much did the vacant parcel sell for per square foot?

Divide the selling price by 43,560 square feet per acre.

$\$65,340 \div 43,560 \text{ square feet} = \$1.50 \text{ per square foot}$

**ADDITIONAL SURVEY MEASURES AND TERMINOLOGY**

Acre 43,560 square feet

Benchmark A permanent reference mark (PRM) affixed to an iron post or brass marker that is embedded in the sidewalk or street, used to establish elevations and altitudes above sea level on surveyed parcels

Practice Questions

13. A quarter of a section contains _____ acres.
14. How many acres are there in a legal description $S\frac{1}{2}$ of the $NE\frac{1}{4}$ of the $SE\frac{1}{4}$ of the $NW\frac{1}{4}$?
15. How many acres are there in the legal description $N\frac{1}{2}$ of the $NE\frac{1}{4}$ of the $SW\frac{1}{4}$ and the $SE\frac{1}{4}$ of the $NW\frac{1}{4}$?
16. How many square feet are in the parcel described in question 15?
17. A property costs \$21,780 per acre. What is the cost per square foot of the property?

8

10.6 DESCRIPTION BY LOT AND BLOCK NUMBERS

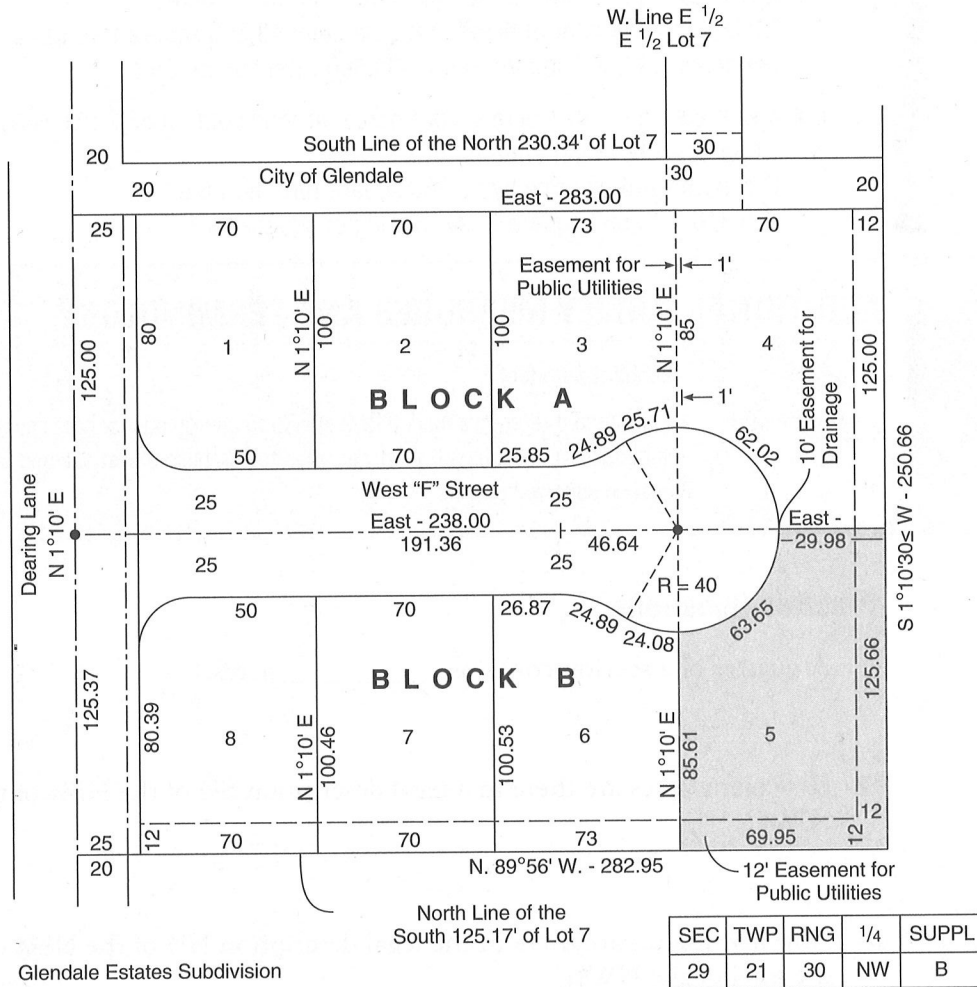
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Probably the most common type of legal description used for single-family dwellings located in developed subdivisions is the **lot and block** (recorded plat) method of land description. The lot and block method can be used only where **plat maps**, or simply *plats*,

1 have been recorded in the public records. The platted subdivision is divided into large
 2 areas called *blocks*, and each block is subdivided into smaller areas called lots. The lots
 3 are usually numbered for convenience in identifying them. If the lots are numbered, the
 4 blocks may be assigned letters to eliminate confusing block numbers with lot numbers. For
 5 example, the shaded lot in Figure 10.8 is Lot 5, Block B of Glendale Estates Subdivision.

FIGURE 10.8 ■ Subdivision Plat Map



Glendale Estates Subdivision

6 The plat map shows actual dimensions for lots, streets, and public utilities. The plat is
 7 recorded in the county courthouse under the subdivision name by book and page number
 8 and becomes the legal description for every lot in the subdivision.

9 **Tax Maps.** Every parcel of land within a tax district is assessed for tax purposes. To
 10 accomplish this task, each parcel is assigned a parcel ID (PID) number or *assessor's parcel*
 11 *number* by the county property appraiser's office. The parcel numbers are used to prepare
 12 tax maps, which are scaled drawings based on recorded plat maps of all real property
 13 within a tax district. Tax maps aid in the assessment of property for tax collection. The tax
 14 maps show the location of the property, dimensions, and the amount of the assessed value
 15 of each parcel. The information is used each year to prepare an assessment roll.

16 The assessment roll is public record of the assessed values of all lands and buildings
 17 within a county. The assessment roll lists every parcel in the county by the assessor's parcel
 18 number, owner's name and address of record, and the assessed value of land and structures.

Practice Questions

18. Platted subdivisions are divided into _____ and _____.

19. Tax maps are based on recorded _____.

10.7 SUMMARY OF IMPORTANT POINTS

- 2 ■ The following three types of legal descriptions are used today: (1) metes-and-
3 bounds, (2) government survey system, and (3) lot and block description.
- 4 ■ Metes-and-bounds is the most accurate method to describe both regularly and
5 irregularly shaped parcels. The method is based on distances (metes) and direc-
6 tions (bounds). Metes-and-bounds descriptions begin and end with a starting
7 point called a point of beginning (POB).
- 8 ■ Corners of parcels of land are identified using markers called monuments.
- 9 ■ The government survey system method of legal description relies on intersecting
10 north-south and east-west lines that form a grid system.
- 11 ■ In Florida, the Tallahassee principal meridian and base line intersect in Tallahassee.
12 The principal meridian runs north-south and the base line runs east-west. A series
13 of lines parallel to the principal meridian were established every six miles forming
14 six-mile-wide strips that run north and south and are called ranges. Parallel lines
15 established every six miles on either side of the base line form east-west strips of
16 land called tiers or townships.
- 17 ■ Township also describes a square that is six miles on each side (six miles square)
18 and contains 36 square miles (36 sections).
- 19 ■ A section is a square that is one mile on each side (one mile square) and con-
20 tains one square mile or 640 acres. Sections are numbered within a township
21 in an S pattern, beginning at the top right corner and numbered right to left
22 (sections one through six), then the next row of sections is numbered left to
23 right (sections seven through 12), and so on.
- 24 ■ To calculate the acreage in a government survey legal description, multiply the
25 denominators of each fraction together and then divide 640 by the result. If the
26 word *and* appears in the description, calculate the acreage on each side of the
27 word *and* separately and then add the two acreages together.
- 28 ■ Lot and block descriptions are used where plat maps of single-family subdivisions
29 have been recorded in the public records. The platted subdivision is divided into
30 blocks, and each parcel within the block is a lot.

UNIT 10 EXAM

1. The NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Section 20, Township 4 South, Range 2 East describes a tract of
 - a. .125 acre.
 - b. .5 acre.
 - c. 10 acres.
 - d. 64 acres.
2. Which legal description consists of 120 acres?
 - a. N $\frac{1}{2}$ of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 3
 - b. S $\frac{1}{2}$ of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$
 - c. NW $\frac{1}{4}$ of the SW $\frac{1}{4}$
 - d. SW $\frac{1}{4}$ of the S $\frac{1}{2}$ and the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$
3. In the metes-and-bounds method of description,
 - a. *metes* refers to direction and *bounds* refers to distance.
 - b. *metes* refers to distance and *bounds* refers to direction.
 - c. *metes* refers to distance and *bounds* refers to measurement.
 - d. *metes* refers to metric and *bounds* refers to boundaries.
4. The government survey system is especially adapted to describing
 - a. lots in platted subdivisions.
 - b. odd-shaped tracts of land carved out of former land grants.
 - c. land in concise symbols and words.
 - d. parcels with man-made or natural physical features.
5. What is the designation of a township located three township tiers south of the base line and five ranges east of the principal meridian?
 - a. R3S, T5E
 - b. T3S, R5E
 - c. R7E, T2S
 - d. T3N, R5E
6. A check is a square with each side measuring
 - a. 1 mile.
 - b. 6 miles.
 - c. 24 miles.
 - d. 36 miles.
7. The tract of land located inside a square formed by intersecting range lines and township lines is called
 - a. an acre.
 - b. a check.
 - c. a section.
 - d. a township.
8. The vertical strip of land six miles wide beginning at the principal meridian and extending six miles east along the length of the principal meridian is called
 - a. Range 1 East.
 - b. Township 1 East.
 - c. Tier 1 East.
 - d. Section 6.
9. If you have located a township designated as T1N, R1E, the township due north of that township is
 - a. T1N, R2E.
 - b. T1S, R1E.
 - c. T2N, R1E.
 - d. T2N, R2E.
10. Which statement is FALSE concerning townships?
 - a. A township contains 36 sections.
 - b. A township contains 36 square miles.
 - c. A township is 6 miles square.
 - d. A township contains 36 acres.

11. In writing the legal description of a section, which is the standard sequence?
 - a. Range number, township number, section number
 - b. Section number, township number, range number
 - c. Township number, range number, section number
 - d. Section number, range number, township number
12. The north boundary of Section 36, Township 1 South, Range 1 West is located
 - a. 6 miles south of the principal meridian.
 - b. 35 miles west of the base line.
 - c. 25 miles west of the principal meridian.
 - d. 5 miles south of the base line.
13. A legal description that reads, in part, "the North one-half of the Northeast one-quarter of the Northwest one-quarter Section 12, Township 42 South, Range 12 East" describes a tract of
 - a. 2.5 acres.
 - b. 5 acres.
 - c. 10 acres.
 - d. 20 acres.
14. A man owned the NW $\frac{1}{4}$ of a section. He sold the W $\frac{1}{2}$ of that NW $\frac{1}{4}$. How many acres does the man still own?
 - a. 40 acres.
 - b. 80 acres.
 - c. 160 acres.
 - d. 640 acres.
15. Plat maps used in the lot and block method of legal description show
 - a. the grid system of government squares.
 - b. dimensions of streets and planned improvements.
 - c. the numerical street address for each lot.
 - d. distance and direction from the point of beginning.